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Estonia

The Challenge of Financial Integration

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To gain recognition from its counterparts in the European Union, Estonia must give priority to improving risk management in its banks and improving institutional capacity for bank regulation and supervision.

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Summary findings

The most important challenge of Estonia's strategy for integrating its financial sector with that of the European Union (EU) is to upgrade its capacity for prudential regulation and supervision enough to gain recognition from its EU counterparts.

Doing so is also a crucial complement to Estonia's strategy for strengthening macroeconomic policy and stabilization — especially because, under a currency board, its banks are a central part of the transmission mechanism for capital flows.

Under the currency board banks have been able to arbitrage between domestic and foreign financial markets — increasingly funding themselves from abroad. Such arbitrage has become the key funding source for rapidly expanding credit, contributing to the country's large current account deficit.

Estonian authorities are justified in tightening prudential regulation and supervision because of the risks associated with an overheating economy, general market volatility, and the possible deterioration in the quality of credit.

Improvements in prudential regulation should be followed by improvements in the country's capacity to supervise banks and an upgrading of the banks' risk management systems, to manage the increasingly complex operations and diverse markets in which they engage. These steps should be a priority. The institutional development of banks and supervision have lagged behind market developments.

In improving the regulatory framework for banks, Estonia should avoid establishing incentives for tax arbitrage that lead to the creation of artificial and socially costly financial intermediaries.

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ESTONIA: THE CHALLENGE OF FINANCIAL INTEGRATION

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ACRONYMS AND ABBREVIATIONS

AIG	**American International Group**
CAR	**Capital Adequacy Ratio**
DEM	**Deutsche Mark**
EBRD	**European Bank for Reconstruction and Development**
ECD	**Estonian Central Depository**
ECU	**European Currency Unit**
EEK	**Estonia Kroon**
EU	**European Union**
GDP	**Gross Domestic Product**
LIBOR	**London Interbank Offered Rate**
OECD	**Organization for Economic Cooperation and Development**
TALIBOR	**Tallinn Interbank Offered Rate**
TSE	**Tallinn Stock Exchange**

I. INTRODUCTION

1. Estonia's road to financial integration leads to two broadly defined reform agendas: improving risk management, and bridging the regulatory and institutional gaps with the EU. These are complementary agendas. Financial integration will increase the intricacy and diversity of financial contracts, making risk management more important and challenging. Meeting EU regulatory and supervisory requirements will create the opportunity for financial institutions, supervisors, and regulators to substantially upgrade their institutional capacity to monitor and manage risk. This chapter therefore identifies the main challenges and risks entailed by financial integration, and outlines a strategy to bridge the regulatory gaps with the EU. The proposed strategy is based on the strengthening of prudential regulation and supervision, taking into account key macroeconomic-related risks. Indeed, we argue that internalizing financial sector policies is an integral part of sound macroeconomic fundamentals.

2. This paper is organized as follows. Section II provides a brief overview of recent developments of Estonia's financial sector. Section III describes the risks and challenges that banks face when operating in a more integrated financial market. Section IV describes the EU requirements for the financial sector. Section V proposes a strategy to meet EU requirement and improve financial sector risk management.

II. FINANCIAL SECTOR DEVELOPMENT IN ESTONIA

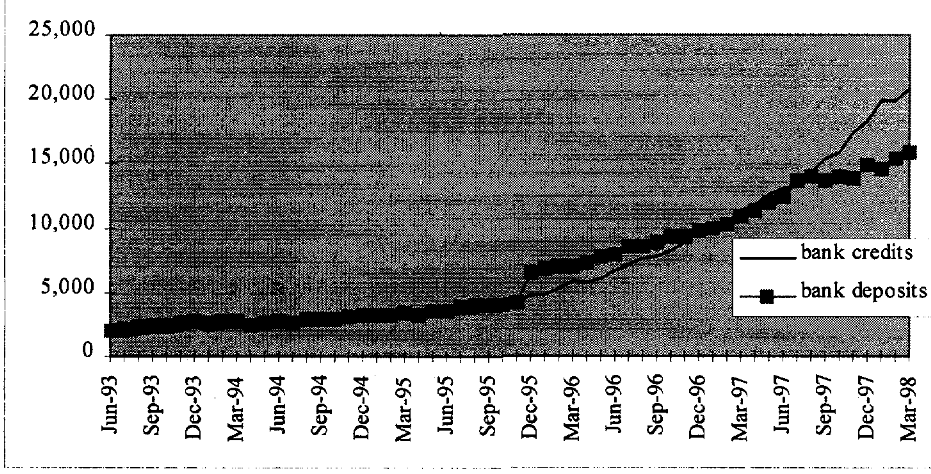
3. The principal factors governing the development of the Estonian financial system are the currency board arrangement instituted in June 1992, and the 1995 Law on Credit Institutions that authorized banks to operate as universal banks. The currency board arrangement provides banks and other financial institutions with arbitrage opportunities at relatively low risk, since it entails an implicit exchange rate guarantee. Under Estonia's currency board arrangement, however, the Bank of Estonia has a limited role as a lender of last resort.[1] This imposes constraints on bank operations, requiring them in principle to hold sufficient reserves of domestic currency, or assets that can be readily converted into foreign currency. Universal banking allows banks to retain an unrivaled position in the financial system. Under the 1995 Law on Credit Institutions banks may own and finance other financial institutions. Universal banking encourages banks to set

[1] Under Estonia's currency board arrangement, the Bank of Estonia may only lend to commercial banks in the event of a general banking crisis, or in the context of restructuring of an individual bank. In any one of these events, the overall amount lent is limited by the excess reserves of the Bank of Estonia -- that is, the foreign reserves in excess of the currency board's requirements. Also, in the first years of operations of the currency board, the IMF programs place additional limits on the Bank of Estonia's lender of last resort function by not allowing the gap between reserves and base money to fall entirely to zero.

up non-bank financial subsidiaries, since it provides them the opportunity to diversify risk, broaden market base, and engage in regulatory arbitrage.[2] The resulting web of financial institutions however makes bank management, regulation and supervision more complex.

4. The summer of 1997 there was a turning point in the development of the Estonian banking system. Before the summer of 1997 growth in bank credit was constrained by the volume of bank deposits (Figure 1). In the summer of 1997, banks begin extending credits beyond the limits of their deposit base. In 1997, bank credit increased by almost 90%, while deposits grew by around 40%. The main factor contributing to this change was bank's access to sources of long term funding, most notably foreign borrowing. Taking advantage of the very low real interest rate in industrialized countries, banks increased their issues of Eurobonds from EEK 83 million at end-1995, to EEK 536 million at end-1996, and EEK 2308 million by September 1997 -- a more than four-fold increase between end-1996 and September 1997.

Figure 1: Bank credits and deposits
June 1994 - March 1998 - EEK Million



5. The availability of foreign borrowing credit allowed a rapid decline in interest rates, although, disinflation was also a contributing factor. Between January 1996 and October 1997 long-term and short-term nominal interest rates dropped over 5.5 percentage points (Figure 2) -- though interest rates increased again following the October 1997 liquidity crunch. Simultaneously, average bank intermediation margins fell

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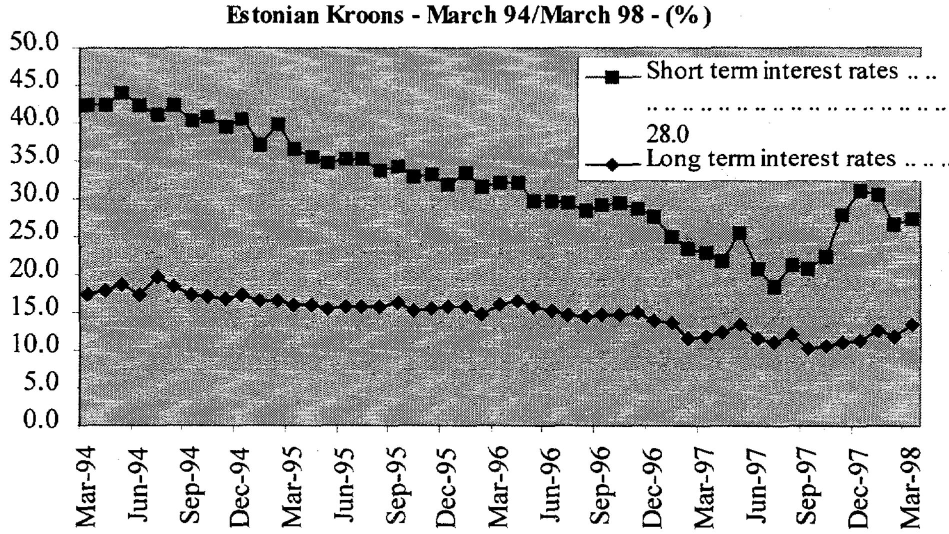
2 Regulatory arbitrage happens whenever a market participant engaged in more than one activity (e.g., banks engaged in securities trading) is allowed to place one of these activities under the oversight of the regulator with the least burdensome requirements.

3 For instance, Hansapank, Estonia's largest commercial bank, began operations by avoiding lending altogether, specializing instead in foreign settlements.

from 9.9% in January 1996 to 3.0% in October 1997. Lower intermediation margins reflected greater liquidity in the market and increased competition in the banking sector, both leading to increased lending volumes.

6. The expansion in bank lending happened against a backdrop of improved regulation and supervision of bank operations. Stricter bank regulations were reflected primarily in the gradual increase in minimum capital requirements, solvency ratios, liquidity ratios, loan loss provisions[4], as well as tighter regulation of credit risks, and foreign exchange risks. This contributes to the consolidation of the banking system. Weaker banks were forced to merge with stronger ones, and entry was made more difficult. As a result, the number of commercial banks operating in Estonia fell from 19 in November 1995 to 11 in January 1998.[5] Also during this period the Finnish Merita Bank opened a branch, and several foreign banks opened representative offices. Foreign ownership, however, increased primarily through foreign participation in Estonian banks. EBRD took equity positions in Hoiupank and Maapank, and the Swedish Swedbank increased its ownership in Hoiupank to just under 20%.

Figure 2: Nominal Interest Rates on Commercial Bank Loans in Estonian Kroons - March 94/March 98 - (%)



7. Bank access to sources of long term funding entailed significant changes to the composition of their loan portfolio (Table 1). There was a marked increase in the maturity of loans. Loans with maturities of five years or more increased from just under

[4] Minimum capital requirements were successively raised to EEK 50 million in January 1996, EEK 60 million in January 1997, and EEK 75 million (approximately ECU 5 million) in January 1998.

[5] Between June 1992 and October 1997, 40 banks ceased to operate in Estonia: 6 had their license revoked because they had never started operations; 7 were declared bankrupt; 3 decided on voluntary liquidation; 2 had their license withdrawn; and 22 either merged with or were acquired by other banks.

3% in December 94 to 18% by September 1997. Banks broadened their market base beyond the corporate sector, extending loans to individuals and financial institutions. By September 1997, individuals and financial institutions accounted for 40% of all new bank loans, compared to just over 10% in December 1994.

Table 1. Loan Portfolio of Estonian Banks

	Dec. 1994	Dec. 1995	Dec. 1996	Sept. 1997
Total Loan Portfolio (Dec. 1994 EEK Million)	4,376	5,223	7,986	12,482
Loans to Government (%)	1.0	1.8	1.5	1.4
Loans to Financial Institutions (%)	0.1	8.9	15.5	20.1
Loans to Corporations (%)	87.8	78.4	67.4	59.4
Loans to Individuals (%)	11.2	10.9	15.7	19.2
Memo items				
Share of loans over one year (%)	49.7	63.0	74.9	75.6
Share of loans over five years (%)	2.9	5.3	10.1	17.7

8. The rapid increase in loans to financial institutions was due primarily to bank financing of affiliated nonbank financial institutions. These consisted mainly of leasing companies, investment funds, and insurance companies, but also included brokerage and asset management firms. Indeed, the largest (measured by size of assets) Estonian nonbank financial institutions are owned by the large commercial banks.[6] Financing these institutions provided banks with the opportunity to diversify risk at a very low cost. For instance, leasing of consumer durables (cars and other moveable assets) are fully collateralized, exposing the leasing company to potentially less risk than banks are exposed in lending. Owning nonbank financial institutions also allows banks to engage in regulatory arbitrage, since the activities of nonbank financial institutions are subject to much less scrutiny than banks. A bank can therefore shift a transaction to its nonbank affiliate to elude supervisors.

9. It is not surprising that banks have played a decisive role in setting up and running the capital markets in Estonia.[7] The brokerage houses, most of which are owned by

[6] For instance, according to the Estonian Leasing Companies Union, in end-1997, Hansa Liising (Hansapank's Leasing company) controlled 37% of the leasing services market, followed by Hoiupanga Liising with 22.3%, Uhisliising with 21.6%, Tallinna Panga Liising with 5.8%, and Foreks Liising with 4.1%. The independent leasing companies accounted only for the remaining 9.2% of the market. These included Toostusliising, Amserv Kapital, and Siemens Finantseeringute OU (Siemens Financing).

[7] The following paragraphs draw on the "Estonia - Note on Capital Markets", World Bank, mimeo, December, 1996.

banks, are the sole owners of the Tallinn Stock Exchange (created in May 1996) and the Estonian Central Depository (ECD). Both institutions are self-regulated and provide the market with well-designed and modern infrastructure. The trading system is very safe and efficient, with next day settlement and all traded securities being dematerialized and deposited at the ECD. This has contributed to increase the liquidity and confidence in the market, building a broad base of investors. Corporations account for over 50% of the investors in the market, followed by foreigners (over one third), and individuals (about one-tenth) (see Table 2).

10. Despite the reliable organization of the capital markets, banks, investment funds and brokerage houses that operate in the market are subject to very low levels of regulation and supervision. The Securities Inspectorate, which reports to the Ministry of Finance, has extensive powers to license, regulate and supervise market participants. However, inadequate regulations, and institutional and staffing constraints implies relatively ineffective supervision. The most effective supervision instrument is through the licensing securities firms. It requires substantial disclosure of balance sheet and income statements, the background of managers, minimum capital requirements, and the employment of licensed (and scarce) securities advisors. The importance of licensing could be enhanced, since there is a requirement that licenses be renewed annually. In practice, however, renewals are automatic with little or no due diligence by the Securities Inspectorate. Meanwhile, regular supervision is hampered by limited reporting requirements and the lack of specificity in rules for transparency, disclosure of information, and insider trading.

Table 2: The structure of the securities market by issuers and investors (%) and major indicators of the securities market in 1995 and 1996

	1995		1996	
	Issuers	Investors	Issuers	Investors
Private persons		8.0		8.8
Institutional Investors	94.0	63.0	96.0	56.1
o/w enterprises	74.6	63.0	86.7	55.4
o/w open sector	19.4		9.3	
Non-residents	6.0	29.0	4.0	35.1
Market capitalization (EEK million)		3.2		13.2
Capitalization / GDP		7.7		26.4
Turnover / Capitalization		2.9		12.5

Source: Bank of Estonia; and World Bank staff estimates.

11. Estonian banks have been particularly active in the Tallinn Stock Exchange, increasing their funding through issues of equity and securities. The country's five largest banks[8] account for three-quarters of the volume and almost two-thirds of the

[8] Hansapank, Uhispank, Hoiupank, Forekspank, and Tallinna Pank.

transactions in the market. These banks therefore are both the largest issuers of traded equity, and the most active participants. This has happened in a market that has steadily grown. At the end of 1997 over 60 companies had registered their stock, and over 40 companies issued bonds. Market capitalization equivalent to EEK 18 billion (28% GDP in end-97), after peaking at EEK 25 million (40% of GDP in end-1997) in September (see Box 1).

12. These developments have entailed recent changes in the policy framework under which banks and nonbank financial institutions operate. In view of the fast growth in credit expansion, including lending to nonbank financial institutions, the Estonian authorities decided to tighten the country's fiscal stance, as well as bank prudential regulations. In end-1997, the Estonian government established a fiscal stabilization fund by withdrawing EEK 700 million of its deposits in commercial banks. Further withdrawals are planned in 1998 until the fund reaches EEK 1.9 billion. In November, the bank's minimum capital adequacy ratio (CAR) was increased from 8% to 10%, with possibly a further increase to 12% at a future date. The tightening of the capital adequacy ratio also included an increase in the risk adjustment on loans to local governments from 50% to 100%. Reserve requirements were extended to include net borrowing from abroad; the liquidity II ratio[9] was increased from 30% to 35%, and the minimum daily liquidity (cash in vaults) requirement for banks increased from 20% to 40%. To avoid over-taxing the banks, however, legal reserves above the daily minimum were allowed to be used to offset liquidity mismatches resulting from daily operations including the interbank market. Similarly, reserves above the daily minimum are remunerated by the Bank of Estonia at the Deutsche Bundesbank's discount rate valid on the last banking day of the month.[10]

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[9] The ratio of all marketable assets with maturities up to 30 days over contractual liabilities up to 30 days. Marketable assets include cash, deposits at Bank of Estonia, deposits in OECD country banks, deposits in other credit institutions, interbank deposits and government bonds.

[10] October 30, 1997, decree of the President of the Bank of Estonia.

BOX 1. THE ESTONIAN FINANCIAL SECTOR IN BRIEF

1. BANKS

- 12 COMMERCIAL BANKS (MAJORITY PRIVATE OWNERSHIP) WITH TOTAL ASSETS OF DEM 4.71 BILLION (AS OF DEC 1, 1997) CA 55-60 % OF GDP, INCLUDING:

  3 banks with assets over DEM 1 billion (Hansapank, Hoiupank (Savings bank) and Ühispank,)
  4 banks with assets between DEM 200 million and DEM 1 billion
  4 banks with assets less than DEM 200 million
  1 branch of foreign bank (Finnish Merita Bank);
- 5 representative offices of foreign banks (Bazis Bank Ltd., Landesbank Schleswig-Holstein Girozentrale, Osuuspankkien Keskuspankki OY, Postipankki OY and Svenska Handelsbanken)
- *Some key indicators (Nov 30, 1997):*

Weighted average capital adequacy ratio	13.5%
Weighted average liquidity rate	47.6%
Average return on equity	20.5%
Average return on assets	2.5%
Net Interest margin	3.4%
Average deposit rates	6.2%
Lending rates	11.7%
Short-term interbank loan rates	1 week: 13.17%, 1 month 13.0%
Non-performing loans	1.0% of total portfolio of loans – fully provisioned

2. SECURITIES

- 47 licensed brokerage houses 9 (as of September 30, 1997), of which at least 18 are bank owned
- Total Tallinn Stock Exchange (TSE) equity market capitalization 1.975 billion DEM (as of Dec 31, 1997)
- Total TSE turnover: in 1996 0.5 billion DEM, in 1997 3.61 billion DEM.
- There are 12 publicly traded joint-stock companies on the main list of Tallinn Stock Exchange (of which 5 banks) and 11 in secondary list (incl. 1 bank and 2 insurance companies,). In addition public shares of 5 enterprises are traded on free market.

3. INSURANCE

- 22 licensed insurance companies, from which 14 non-life insurance, 8 life insurance companies (100% private ownership). Major foreign insurance companies on the market (independent subsidiaries or as shareholders) are Finnish companies Pohjola and Sampo, Swedish Trygg-Hansa, US American International Group (AIG), German Alte Leipziger Europa, Russian Ingostrahh. All the 22 companies are united in the Association of Insurers. One company has a license for writing reinsurance business.
- 9 insurance consultants/brokers
- Agencies of foreign reinsurance companies (Swiss Re Advisers)
- Premiums collected (I half of 1997) DEM63 mln
- Major changes are expected to take place in the insurance market in line with the pension reform in the next 3 years

4. LEGAL BACKGROUND & SUPERVISION OF THE FINANCIAL SECTOR

- **Banking**

⇒ *Law on Bank of Estonia* (May 1993) establishes the BoE independence in establishing and enforcing prudential regulation through Banking Inspectorate.

⇒ Capital definitions (capital adequacy ratio), and various liquidity and solvency ratios and exposure limits (to large loans, connected lending, etc) are established by *Law on Credit Institutions* (Dec.1994) which is mostly consistent with EU standards.

⇒ Starting from 1998 the Banking Inspectorate is enforcing prudential regulations on consolidated basis, i.e. supervising not only banks but also their financial subsidiaries, mainly their activities in the securities market.

⇒ *Draft Deposit Insurance Law* is currently in parliament. According to the draft law small deposits of both residents and non-residents (with maximum value up to about DEM 2,500 which will be gradually raised to EU standards of ECU 20,000) will be 90-100% insured. Insurance scheme will be financed by obligatory annual payments of commercial banks (0.5% of total value of insured deposits). The deposits of large enterprises will not be insured (a large enterprise is an enterprise which exceeds two of the following three criteria: total assets 1 million ECU, annual net sales 2 million ECU, and number of employees 50).

- **Securities**

⇒ *Securities Market Act* (June 1993)

⇒ Securities Inspectorate under the Ministry of Finance

⇒ TSE has 23 shareholders (11 banks, 10 brokerage firms, Ministry of Finance, Bank of Estonia) of which 18 are member firms. TSE started trading in June 1996.

⇒ New draft Securities Law will regulate the primary and secondary markets, insider trading, and will introduce minimum capital and capital adequacy requirements for investment funds

- **Insurance**

⇒ *Insurance law* (1992)

⇒ *Motor Third Party Liability (TPL) Insurance Law* (Dec.1995)

⇒ Estonian Insurance Supervisory Authority, established Jan. 1993, under the jurisdiction of the Ministry of Finance (operating expenses covered by insurance companies at a fixed percentage of their annual insurance premiums).

⇒ *New draft of Insurance Law* is compatible with EU regulations and contains provisions on insurance supervision, its responsibilities and rights responding to the free market system.

III. IMPROVING RISK MANAGEMENT

13. Estonia's integration into the EU will heighten risks to which the banks and other financial institutions are exposed. The recent experience in dealing with capital inflows illustrates this quite well. Successful integration of the Estonian financial sector into the EU will hinge on the ability of banks and nonbank financial institutions to improve risk management, and the capacity of bank regulators and supervisors to bridge the institutional gap with the EU. This section highlights four main risks that the Estonian banks will need to manage: output volatility, asset price volatility, liquidity shocks, and off-balance sheet risks. The next section examines the regulatory and supervisory gap between Estonia and the EU, and strategies to bridge this gap.

14. ***Output Volatility and Credit Risk Management.*** Under a currency board arrangement, the loss of exchange rate flexibility to smooth out the recessionary effects of a monetary tightening, increases the volatility of output. The increased output volatility makes it harder to assess the quality of the bank's loan portfolios. For example, during the expansionary part of the cycle the forecasts of borrower's repayment capabilities tend to be optimistic. This biased perception may be wrongly validated by the likely decline in the share of bad loans, which may be also the consequence of fast credit growth. This may change dramatically during economic downturns, when borrowers face difficulties in servicing loans. Banks may therefore become more conservative, contributing to the cyclical downturn, and lowering further the quality of banks portfolios. This problem is compounded by the fact that the stabilization strategy has prompted rapid credit growth, which has not been matched by an equally rapid institutional development (neither of the banks nor of the supervisory authority) to ensure portfolio quality.

15. Indeed, the fast growth of credit to the private sector (see Table 2) at declining rates of interest (see Figure 2), raises concerns about the quality of credit. Even though the share of overdue loans has more than halved from 3.7% to 1.5% during this period, the short credit history of Estonian enterprises, the relative inexperience of analysts, and lack of good internal controls or risk management systems suggest that banks may in fact not yet be well prepared to differentiate between low risk and high risk projects. This problem is compounded by the fact that the current structure of incentives within some of the banks are strongly geared to reward those actions that lead to gain "market shares" rather than to ensure the long-term success of loan decisions. While there has been substantial progress and modernization in the large banks, the rush of some banks to gain market share has not been paralleled by efforts to improve key functions to manage risk of lending portfolios and, more generally, asset portfolios. There has been progress in areas such as product development and marketing, organizational structures, information technology, work-out units, loan procedures, and credit risk and account management. The internal control and auditing functions, however, still need substantial upgrading.

16. ***Asset price volatility.*** The absence of an exchange rate cushion under a currency board implies that market pressures translate more often into asset price volatility. This tends to exacerbate banks' exposure to market risks, particularly interest rate and equity risks. The interest rate risk is derived from large maturity mismatches between deposits and loans. In Estonia, most deposits are under 3 months, while 76% of the loans are over one year -- only 5% of the deposits are over 1 year. A hike in interest rates thus could rapidly shrink spreads. Even though semi-annual indexation of most loans to their base rates or the Tallinn Interbank Offered Rate (TALIBOR) partially compensates for this risk, sharp interest rate hikes could severely affect the profitability of commercial banks. In case the recent hike in interest rates continues or is deepened, the bank's margins could erode, as their interest receipts may not react sufficiently fast (i.e.; before the indexation kicks in) to cover for the rising costs of domestic funding of banks.

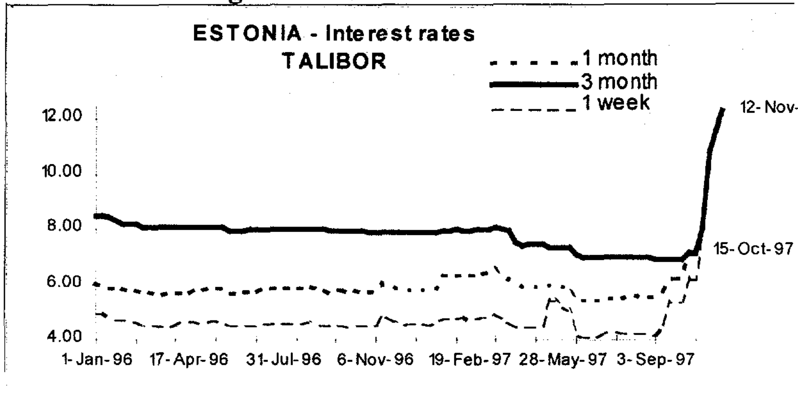
17. The equity risk emerges from two different sources: equity held as collateral for loans granted, and the bank's own equity holdings that compose their capital and their trading portfolio. The former is a significant source of risk for Estonian banks given the practice of granting loans on margin - that is, using as collateral stock owned by the borrower. The equity risk is accentuated by the high volatility of the Tallinn Stock Exchange (TSE). The Tallinn Stock Exchange (TSE) is small, dominated by relatively few listings (mostly banks), and relies primarily on self-regulation. The latter, in particular, increases the scope for insider trading which can lead to a rapid loss of confidence or concerted anti-competitive operations. While the growth of the market has been spectacular until October 1997, the recent correction may have a lasting impact on the risk perception of small investors and it may take time before confidence returns.

18. ***Liquidity shocks***. The limited role played by the Bank of Estonia as a lender of last resort under the currency board arrangement implies that Estonian banks face a greater risk of liquidity shocks. These liquidity shocks can affect the banking system as a whole (aggregate shocks), or be limited to one or only a few banks (idiosyncratic shocks). Aggregate liquidity shocks result most often from events that happen abroad. For instance, the tightening of monetary policy in large industrial countries that leads to an overall increase in interest rates, or a major crisis in another country or region (e.g., the recent East Asia crisis) that can change investor's perception about the riskyness of emerging markets. Another potential source of aggregate liquidity shocks is a sudden changes in the government's fiscal position. The government accounts for around 20% of deposit in banking system. A sudden withdrawal to cover a shortfall in revenues or an unexpected increase in expenditures could leave some banks, if not the entire banking system, in a tighter liquidity position. Idiosyncratic liquidity shocks emerge from the change in perception about the solvency of one or a few banks. Depositor may decide to withdraw their funds to protect their investment, leading to insolvency. While idiosyncratic liquidity shocks can be limited in impact, they are also rapidly transmitted through the interbank market to the rest of the economy.

19. A liquidity shock transmitted through the interbank market is, in many ways, one of the most important aspect of the events that took place in October 1997. A few commercial banks had overextended themselves and began borrowing in the interbank market to fund new operations. The interbank interest rate increased three-fold before transactions dried up (Figure 3).[11] In the scramble for liquidity, banks liquidated investment positions pushing stock prices down. Lower stock prices forced many banks to call margin loans, putting further downward pressure on share prices. The liquidity crunch only came to an end after some banks agreed to stop calling margin loans.

[11] It is important to note the importance of this development. The virtual lack of public debt instruments - except for small amounts of bank restructuring government bonds and municipal bonds - implies that the interbank market provides the benchmark interest rates for the majority of financial transactions.

Figure 3. Interbank interest rates



20. The October 1997 experience also illustrates the risks associated with excessive reliance on foreign sources of funding. Initially, the fast rise in foreign borrowing by commercial banks had allowed some reduction in the maturity mismatch. After October 1997, however, the terms under which Estonian banks have access to foreign sources of funding has changed very rapidly –as it happened, to a lesser degree, during the second half of 1997, in most emerging countries following the Asian crisis. Long term funding for three to five years at interests rates less than 100 basis points above the LIBOR is no longer available, as it was up to October 1997. It has been replaced by shorter term funding (one year or less) for slightly higher rates, or funds with longer maturities at substantially higher rates -- junk bond grade. Estonian banks have chosen to shift to short-term borrowing (Figure 4), rather than pay much higher rates on their foreign borrowing. Beginning in October 1997, the share short term borrowing in total bank borrowing increased from around 25% to almost 50%, and continued increasing gradually from this new level.

21. Shorter maturities on foreign borrowing expose banks to the risk of clustering of repayments. Indeed, if short term credits cannot be renewed, the decline in reserves of the Bank of Estonia leads to a proportional reduction in base money and a tightening in liquidity conditions. To some degree that happened in January 1998, when the repayment of foreign credits by Estonian banks accounted for a large share of the 8% decline in the reserves of the Bank of Estonia, and the matching 12% drop in base money. A greater clustering of repayments of short term credit some time in the future would lead to a sharper tightening in liquidity that would raise interest rates higher, hurting bank profitability and affecting the quality of loan portfolios.

22. ***Contagion, consolidation and exit strategies***. The tightening of regulations and the strengthening of supervision standards has contributed to the rapid consolidation of the banking sector. Also, the Bank of Estonia has encouraged banks unable to meet the stiffer operating requirements to merge with stronger banks, providing, in some cases, guarantees to facilitate these mergers. This consolidation continues to gather pace as

financial integration deepens. The merger of the first and the third largest banks (Hansapank and Houipank) and the second and the fifth largest banks (Uhispank and Tallinna Pank) have already been announced. The resulting banks will account for over two-thirds of the Estonian banking market. Regulators and supervisors will come under increased pressure to monitor the activities of very large banks, while still overseeing smaller and more fragile banks. It is important therefore that the process to deal with insolvent institutions be unambiguously spelled out. Authorities should take steps to ensure that management will always lose their jobs and shareholders their capital in the event of failure. This will greatly reduce the moral hazard associated with operating banks, minimizing the potential contagion effect. Banking prudential regulations, particularly the mechanisms of intervention and/or liquidation of institutions and the deposit insurance law, are at the core of macroeconomic management.

23. *Foreign Competition.* The scenarios for consolidation of the Estonian banking system also need to account for the increase in foreign competition. While the larger Estonian banks appear to be prepared to operate in the more competitive environment that will emerge with EU integration,[12] they should expect flatter margins and increased volatility. More importantly, they should expect greater competition in other financial subsectors such as insurance and brokerage. In these subsectors the size of foreign companies, as well as technological, organizational and marketing skills will place foreign companies at a significant advantage. The greater competition in the financial system may also accentuate the usual problems associated with the implementation of deposit insurance for all banks, as EU Directives require, adding new stresses to Estonia's consolidated supervision structure.

24. **Off-balance sheet risks**. Intense competitive pressures has already led banks to meet more sophisticated liquidity and risks management needs of their clients through off-balance sheet operations. These include loan commitments, credit lines, guarantees, swaps and hedging transactions, and securities underwriting.[13] Some of these operations are aimed at increasing income fees, others allow banks to escape regulations such as minimum capital requirements. Tightening regulations therefore can only partially address the risks that result from off-balance sheet operations. To deal with risks that derive from financial innovations regulators need to encourage the flow of information between banks and supervisors, harmonize rules between markets, develop meaningful and transparent accounting standards, and establish adequate documentation for new instruments. Indeed, a market-oriented, risk-based framework is what is intended with the a 1995 amendment to the Basle Capital Accord. Under this amendment banks will have to incorporate capital charges for the market risk arising from their trading activities

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[12] The free entry of branches and subsidiaries of much larger foreign banks has always been allowed.

[13] From an accounting point of view, none of these operations correspond to a genuine liability (or asset) for the bank, only to a random cash flow. This is why they are classified as off-balance sheet operations.

and from their open positions in foreign exchange and commodities. The amendment permits banks to use their own internal models as a basis for measuring risk as an alternative to using a standardized measurement framework. As Estonia moves to adopt the new standards for market risk (which are already part of the EU capital Adequacy Directive), Estonian banks will have to move fast to implement risk management systems. At present, most banks still do not run control systems to monitor the risk derived from their off-balance sheet activities, especially derivatives. Similar weaknesses in the Banking Supervision Department of the Bank of Estonia also means that the resulting risks can go unchecked.

IV. BRIDGING THE REGULATORY AND INSTITUTIONAL GAPS WITH THE EU

25. The other important step toward financial integration is bridging Estonia's regulatory and institutional gaps with the EU. This step is important for two reasons. First, the EU will not establish a EU level regulatory body. It will rely, instead, on national financial supervision bodies. The harmonization of financial sector legislation with EU Directives is therefore essential to allow international transactions to be carried out without running into to conflicting rules and regulations. Second, a reliable regulatory framework is key for adequate risk management, particularly, in view of the expected high volatility resulting both from Estonia's currency board arrangement and increases competition in the EU single market.

26. *EU financial sector Directives.* The EU financial sector Directives aim at "coordinating the minimum requirements for the different type of institutions in order to create a minimum standard and a more level playing field as the basis for home country control and the single license".[14] The EU White Paper - Preparation of Central and Eastern Europe countries for integration into the internal market of the EU - proposes to address the measures for harmonization in two stages (see Table 3). Stage one concerns all those measures that address fundamental principles and provide the overall framework for more detailed legislation. Stage two consists of measures to reinforce the prudential regulation and are more closely linked with the creation of the EU's internal market. However, the order in which the measures are *de facto* implemented should ultimately depend on the specific needs of Estonia's financial sector.

27. The following paragraphs examine the EU 1992 program for complete financial market integration in banking, insurance and securities. In doing so, they highlight Estonia's key legal harmonization and institutional gaps vis a vis EU Directives.

28. ***Banking***. The EU financial integration program covers two broadly defined sets of regulations. The first set includes a series of Directives issued between 1977 and

[14] Financial Services Chapter of the White Paper, European Commission.

1989 dealing with basic harmonization issues such as common annual account formats, consolidation requirements, own funds definitions, solvency, common standards for bank licenses and disclosure requirements for foreign branches. The second set of regulations, known as the second banking Directive, is the core regulation enabling a single market in banking. It was issued in December 15, 1989 and has been effective since January 1993.

Table 3. EU Financial Sector Directives

	Banking	Capital markets	Insurance
Stage I	First Banking Directive - 1977 Own Funds Directive - 1989 Solvency Ratio Directive - 1989 Deposit Guarantee Directive - 1994 Money Laundering Directive - 1991	Public Offer Prospectus Directive - 1989 Stock Exchange Listing Directive - 1979 Major Holding Notification Directive - 1988 Insider Trading Directive - 1989 Investment Funds (UCITS) Directive - 1985 Money Laundering Directive - 1991	First Non-Life Insurance Directive - 1973 First Life Insurance Directive - 1979 Annual Accounts and Consolidated Accounts Directive - 1991 Money Laundering Directive - 1991
Stage II	Second Banking Directive - 1989 Large Exposures Directive - 1992 Annual Accounts and Consolidated Accounts Directive - 1992 Capital Adequacy Directive - 1993 Consolidated Accounts Directive - 1992	Investment Services Directive - 1993 Capital Adequacy Directive - 1993	Third Council Non-Life Insurance Directive - 1992 Third Council Life Insurance Directive - 1992

29. *The Second Banking Directive.* The second Directive defines the three main principles for banking operations in the EU: (i) a common minimum capital requirement - ECU 5 million for new banks; (ii) a single banking license; and (iii) the principle of home country control. The single banking license allows a bank licensed in any of the EU countries to provide services and establish branches in all other countries without any need for permission from the host country. The principle of home country control authorizes credit institutions to perform activities anywhere in the EU. Since there is not going to be an EU wide supervision authority, the common licensing procedure raises the issue who would supervise banking activities by foreign credit institutions. Host country supervision is not really possible because of the liberal attitude towards cross-border services and branching. This Directive therefore introduces the concept of mutual recognition, coupled with the requirement to supervise credit institutions on a consolidated basis. Supervision is to be performed by the home country and will be recognized as adequate by all countries in which the institution under supervision is active. However, while overall solvency of the bank is the responsibility of the home country, the liquidity in the branches is supervised by the host country.

30. *Mutual recognition of supervisory authorities.* For mutual recognition to work some assurances of minimum quality supervision are clearly necessary to avoid regulatory arbitrage. A series of Directives has attempted to impose minimum prudential standards across the EU. These Directives established common rules on investments,[15] connected lending exposure, and aggregate large loan exposure.[16] Moreover, these Directive establish common definitions of capital,[17] and a common approach to prudential regulation, implementing the Basle standards for capital adequacy.[18]

31. *Capital adequacy.* The Capital Adequacy Directive covers both the capital adequacy of credit institutions and investment firms. It deals with risks other than credit risk, that is covered under the Solvency Directive. This Directive affects the trading book of a bank and the capital of a bank to position risk. The latter includes hedged positions (which carry much reduced requirements), foreign exchange rate risk, and settlement risk. Also, to insure a level playing field, common standards for deposit insurance have been imposed requiring deposits of up to ECU 20,000 to be insured.

32. This network of regulations is clearly essential for EU-wide financial integration to work effectively without increasing financial system fragility, maintaining the soundness of the banking system. It is not obvious this will be enough, as higher competition will eventually lead to lower profit margins and more risk taking by banks. The USA and the UK are examples of how increased competition leads to higher quality and lower costs of services, but also to a more crisis prone financial system. Hence the importance of adequate supervision. In banking, this is likely to be the main sticking point during accession negotiations.

33. *What are the gaps in the Estonia banking legislation?* Estonia's legislative harmonization efforts in the area of banking are noteworthy. Most EU Directives concerning credit risk - large exposures, connected lending, definition of own funds, solvency and liquidity ratios - as well as investment restrictions and other EU requirements - such as prevention of money laundering and banking secrecy - have been already incorporated into applicable legislation. The remaining legal harmonization gap is going to be significantly narrowed after many of the requirements detailed in the Capital Adequacy Directive - which have already been regulated - are implemented by the new Banking Law - expected to be passed during 1998. The changes proposed include primarily prudential regulation concerning market (non-credit) risks such as: off-

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15 The maximum share a bank can hold in a single non-financial firm is 15% of its own funds, and these shareholdings cannot cumulatively exceed 60%.

16. Large loan exposure cannot exceed 25% of own funds to a single borrower, and 800% on aggregate.

17 The Own Funds Directive distinguishes between core and supplementary capital.

18 Bank's own funds should be at least 8% of risk-adjusted value of assets and off-balance sheet business.

balance sheet risks, underwriting commitment risks, derivative risks, and equity position (own and trading portfolio) risks.[19] Also, the Bank of Estonia plans to introduce reporting requirements for consolidated supervision, and a deposit insurance law.[20]

34. ***Capital Markets***. The capital markets Directive focuses on establishing general principles underlying the operations of capital markets. This includes adequate information provision to the public and equal treatment of investors. Rules were also established on price manipulation, secrecy and publication requirements for listed companies, and minority shareholder rights in case of takeovers. Listing requirements include minimum size, the obligation to publish annual reports satisfying certain standards, and the duty to publish price sensitive information forthwith. Later Directives addressed the emergence of new types of investment companies and issues concerning mutual recognition and information requirements.

35. The key Directive in the capital markets is the 1993 Investment Services Directive. It is equivalent to the second banking Directive. This Directive established the single license rule, mutual recognition and home member state supervision for investment firms. It allows firms (brokerage houses, portfolio managers, professional investment advisors, etc.) to offer their services throughout Europe. It is similar to the license banks received to engage in securities activities on a pan-European basis. Another key Directive, the 1993 Capital Adequacy Directive, defines minimum capital requirements (ranging between ECU 125,000 and ECU 730,000). It also defines rules on capital for different types of operators, requiring consolidation where two or more investment firms belong to the same group. In case there is a bank in the financial group, the banking consolidation Directive applies. No agreement however has been reached yet on eliminating national restrictions on investment portfolios by pension funds.

36. *What are the gaps in the Estonian Capital Markets Legislation?* The Estonian Securities Market Act of 1993 provides the legal framework for the operation of Estonian capital markets. It has been amended several times, including a recent amendment in 1997, to reflect EU Directives. It covers general aspects concerning the issue and registration of securities, disclosure by issuers, licensing of brokers, definition of insiders, and monitoring and supervision by the Supervisory Board. However, regulation and

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[19] These items will be incorporated in the calculation of the capital-adequacy ratio.

[20] The deposit insurance law that has been drafted will guarantee 90% of both private and company deposits up to a maximum of EKK 20,000 (ECU 1,250); the limit will be gradually increased to ECU 20,000 over 15 years.

[21] The Bank of Estonia has already reached a formal agreement with the Bank of Finland on banking supervision, and is negotiating similar agreements with Latvia and Russia.

supervision of securities only covers EU Directives to a limited degree and constitutes the weakest spot of Estonian securities markets. The largest regulatory gap is on the application of the EU Capital Adequacy Directive. On the supervision side, there are no clear rules and processes for supervisory authorities. Also, the regulation of the Tallinn Stock Exchange (currently self-regulated) greatly constrains the enforcement of the legislation. There are limited reporting requirements and a lack of specificity in the rules for transparency, disclosure of information, and insider trading. The main exception to the above concerns investment funds. The Investment Funds Act of 1997 has been drafted with the objective of harmonization with the EU Investment Funds Directive. As a result, the effectiveness supervision of investment funds is more effective than that of securities.

37. Securities brokers recognize the need for strengthening the regulatory and supervisory framework of the Securities Inspectorate. Reliance on the self-regulatory standards that the TSE and ECD impose is perceived to be inadequate in the face of prospective market growth. A larger market will make it more difficult for all market participants to be informed about the activities of peers, and to use peer pressure to enforce standards. While the growing importance of self-regulation has played a positive role in capital market development, in the absence of enhanced regulation and supervision, capital markets run the risk of discouraging potential new entrants - new firms that join the TSE will seek comfort on legally binding regulatory mechanisms - setting in motion anti-competitive pressures to the disadvantage of clients and the overall reputation of the market.

38. A new Securities Law, to be prepared during 1998, will improve harmonization with the EU in the following areas: central register, primary and secondary market of securities and investment services. The Government plans (yet to be confirmed) suggest that rather than strengthening the existing Securities Inspectorate (which is strongly needed), it may propose a merger with the Financial Supervisory Authority (to be established) that would be responsible for consolidated supervision. This, in turn, may facilitate the comprehensive implementation of the EU Capital Adequacy Directive that will apply both to banks and to investment companies competing with banks in the securities markets.

39. Notwithstanding plans to establish consolidated financial sector supervision, the Estonian authorities need to take immediate action to upgrade the capacity of the Securities Inspectorate to effectively perform its responsibilities. This includes revising the Securities Law, spelling out clearer reporting requirements and specifying rules for transparency, disclosure of information, and restraining insider trading. Amendments to the legal framework need to be matched with better staffing and funding of the Securities Inspectorate. Authorities need to increase funding for the Securities Inspectorate through special budget allocations, such as the reserve fund, or funds earmarked for EU

integration. In the 1999, funding should come from contributions from market participants: legislation needs to be modified to make this possible.

40. There are two arguments for immediate action in upgrading the capacity of the Securities Inspectorate. First, the Securities Inspectorate is the weakest link in financial sector supervision. Delays in upgrading its supervisory powers and capacity pose a risk to financial stability and growth. Second, strengthening the Securities Inspectorate is an important first step toward consolidated financial sector supervision, a key EU Accession requirement, since consolidated supervision is more easily built from strong supervisory agencies.

41. ***Insurance***. EU Directives in the insurance sector follow the same principle as those in the Banking sector: free trade and investment, mutual recognition and home country control. A strict separation is maintained between life and non-life insurance. The same Directive sets guidelines for solvency margins and requires a guarantee fund and defines different classes of life insurance. The Insurance Accounts Directive acknowledges the considerable convergence in the EU (for example, in terms of premium calculation, asset's valuation, investment rules and policies) in non-life insurance; although there is far less convergence for life insurance. The latter Directive is aimed at harmonizing the information disclosure needs in order to facilitate the standard of comparability that the EU internal market requires. Later amendments dealt with harmonizing regulatory issues such as large shareholder disclosure rules, and, most importantly, established the single license and home country rule (1992).

42. *What are the main gaps in Estonia insurance legislation?* The 1992 Estonian Insurance Law provides the basic framework for regulating the life and non-life insurance activities in Estonia. While the law defines many of the EU requirements, such as investment rules, solvency, licensing, and disclosure requirements, it lacks precision on enforcement procedures. For example, regulations need to make more explicit the processes for calculating reserves, licensing and supervising companies. The law also contains some inconsistencies. It defines local government bonds as safe assets, despite the recent Bank of Estonia decision to increase the risk attached to the bonds from 50% to 100% for the purpose of calculating bank capital adequacy ratios. The Insurance Act (currently under preparation) will help to address some of these weaknesses and also contains provisions on insurance supervision. The institutional framework and capacities for insurance supervision have yet to be developed. Adequate supervision, therefore, is the most important barrier to eventually join the EU internal market, given the time, continuous commitment and funds it requires.

V. PRE-ACCESSION STRATEGY TO STRENGTHEN REGULATIONS AND SUPERVISION

43. The integration of international capital markets, the creation of increasingly complex contractual instruments, the unbundling of the components of risk into separate financial products, and the rapid growth of financial conglomerates enable a more efficient financial intermediation. These transformations also pose new challenges for the regulation and supervision of financial markets. Estonia's regulatory and supervisory framework faces the formidable challenge of simultaneously dealing with its existing weaknesses while adapting to the rapidly changing environment characterized by the dismantling of geographic, functional, and institutional frontiers.

44. The single most important challenge of Estonia's strategy for financial sector integration into the EU is the further upgrading of its prudential regulation and supervisory capacities to gain recognition from its EU counterparts. This also happens to be a crucial complement to macroeconomic policy and the stabilization strategy, particularly in view of the central role that banks play in the transmission mechanism of capital flows under a currency board. Indeed, under the currency board banks have been able to arbitrage between domestic and foreign financial markets, increasingly funding themselves abroad. Such arbitrage has become the key funding source for a very rapid credit expansion, contributing to the large current account deficit. The risks associated with an overheating of the economy, a possible deterioration of the quality of credit, and market volatility in general justify the tightening of prudential regulation and supervision pursued by the Estonian authorities. These improvements in prudential regulations now need to be followed by upgrading banks' risk management systems (to manage the ever more complex operations and diverse markets in which they engage) and the development of the country's supervisory capacity. This should be a priority because the institutional development of banks and the supervision authority have lagged behind market developments.

45. The proposed pre-accession strategy for Estonia's financial sector is as follows:

A. Banking

⇒ Conduct a comprehensive diagnostic review of the governance and organizational structure, staffing and remuneration arrangements of the supervisory agency. The recommendations from such study should be aimed at (i) strengthening the autonomy of the agency: (ii) facilitating the training and retaining of its personnel through competitive salaries and better career prospects; (iii) reinforcing the on-site and off-site analytic capabilities (see below), including through the hiring of external auditors; and (iv) arranging programs of exchange with the EU to facilitate from the outset the design of an institutional structure acceptable by other EU agencies. The autonomy for the supervisory agency could be strengthened by, for example, entrusting the director and board of the agency for fixed term mandates, and by placing the agency directly under the presidency of Bank of Estonia or a Committee with wider representation including the Ministry of Finance, the Bank of Estonia, and the Prime Minister's office. Finally, the structure of the supervisory agency could be strengthened by creating two separate units -- one responsible for regulatory policy, another one responsible for investigation and enforcement.

⇒ Raise the number and the skills of the staff in the supervisory agency. Supervisors should be trained to detect cases of connected lending, which may be shielded by parallel companies; and identify cases in which overdue loans are rolled over or not fully declared overdue. For example, in some cases only the overdue interest and principal are declared in default. Training on the job is crucial for this purpose. External auditors could, while performing their job, provide training to the agency's employees. The agency could also seek technical assistance support and engage in twinning arrangements with other agencies, possibly from EU countries. Donors' grants to fund consultants that provide support in the field and to fund training abroad of the agency's employees will be non-distortionary and highly beneficial to the strengthening of the supervision function.

⇒ Speed up implement plans to introduce consolidated supervision for banking, insurance, securities, and, in the future, pensions. While consolidated supervision may facilitate the comprehensive implementation of EU Capital Adequacy Directive, it should not provide an excuse for delays and inaction in upgrading the country's supervisory capacity under its current structure. The Ministry of Finance and Bank of Estonia should therefore consider the following intermediary steps: (i) an across the board upgrading of supervisory agencies, (ii) the revision of secrecy provisions that limit information flows across supervisory agencies and across country borders; and (iii) joint on-site inspections and off-site supervision exercises that would prepare staff for consolidated supervision. The Bank of Estonia has taken the initiative to require from the banking groups consolidated reports to be able to apply consolidated reliability norms. However, neither the Bank of Estonia, nor the Ministry of Finance have taken steps to improve their capacity to carry out these new responsibilities. The Bank of Estonia's Banking Supervision Department and the Ministry of Finance's Securities Inspectorate are still understaffed and underfunded relative to what is needed to effectively perform their responsibilities.

⇒ Seek closer coordination with regulatory and supervisory agencies of the other Baltic countries and other neighboring countries, as currently planned by the Bank of Estonia. This will become increasingly important as Estonian banks continue to expand into neighboring countries - particularly the other Baltics - and banks from neighboring countries enter Estonia. The large Estonian commercial banks are also targeting the Saint Petersburg area in Russia. Collaboration with the Russian authorities may also prove to be mutually convenient. Similarly, building working relationships with EU counterparts and maintaining the on-going relationship with the

Basle Committee of Banking Supervision will in the end be critical for a smooth transition to EU membership and to remain abreast of major trends in supervision, particularly, consolidated supervision.

⇒ Proceed with the planned introduction of regulations to deal with a number of key market risks, scheduled for April, 1998. The new market risks to be covered include: equity risks and underwriting commitment risks. The former should be measured on a gross basis and applied to the minimum capital adequacy requirements of both the credit institution and the consolidated banking group. There is also a need to make more explicit the regulation for provisioning against bad credits. The present regulation concedes considerable amount of discretion to supervisors in determining on a case by case basis whether the corresponding bank is pursuing conservative practices or not for loans overdue less than 150 days. This will facilitate the work of the supervisor and eliminate the scope for subjective and inconsistent treatment across banks or over time. Estonia should also consider regulating interest rate risks.

⇒ Increase the transparency of information and the frequency of disclosure of bank's risks to the supervisory agency and to the broader public. The commercial banks should report to the Bank of Estonia on an on-line basis: daily money market and overnight market positions, balance sheets including forward exchange rate contracts every 10 days; monthly Capital Adequacy Rate and liquidity positions; quarterly profit and losses; and annual ownership structure. All this information should also be made available to the public. This will facilitate the monitoring of bank's own creditworthiness and liquidity situation by depositors and institutions that perform credit risk analysis. The above list of indicators to be disclosed could be widened to include specific indicators of market risk (such as interest rate risk, underwriting commitment risk, equity risk), the share of foreign currency loans of borrowers with a net foreign currency cash flow, as well as a domestic credit rating from an independent and reputable credit rating agency. In particular, disclosure of the risks which the bank's own risk management systems identifies as critical can help to impose discipline on market participants.

⇒ Revise the proposed deposit insurance law required for EU accession. There is an inconsistency between the Credit Institutions Law and the draft Deposit Insurance Law. In its present form, the Credit Institutions Law suggests that the Bank of Estonia would intervene in banks in case of a financial crisis. This creates ambiguity about who intervenes in insolvent banks, and when. It also raises questions about the purpose of the Deposit Insurance Fund. Indeed, if the Bank of Estonia intervenes to avoid losses to depositors and shareholders, as in the case of the North Estonian Bank and the Social Bank, the Deposit Insurance Fund becomes unnecessary. The Estonian authorities may wish therefore to ensure that the passage of the Deposit Insurance Law is accompanied by comprehensive provisions to deal with bank insolvency in the Credit Institutions Law. This is critical to strengthen the credibility of a possible bank liquidation, facilitating supervision and early intervention. Once the Credit

Institutions Law is amended to clarify the role of the Bank of Estonia as a lender of last resort, the Deposit Insurance Fund would be an integral element of bank bankruptcy procedures. The existence of a Deposit Insurance Law will allow the Bank of Estonia to intervene whenever there is the need without concern about the potential cost to small depositors. An adequately funded Deposit Insurance Fund would ensure that the loss to small depositors, those less able to monitor risky behavior by banks, would be minimal.

⇒ Training of the treasury departments of commercial banks in currency and interest rate hedging, as well as in risk management of options and derivatives trading. The implementation of asset-liability risk management systems needs to be extended to all commercial banks, particularly the smaller ones. On-site training and twinning arrangements are likely to be the most effective. Credit risk capabilities, particularly of the smaller and medium-sized banks, need to be strengthened since the large banks are so far leading the efforts in training. Short credit histories and relatively inexperienced analysts are shortcomings that could be compensated with more conservative economic and financial scenarios and greater reliance on cash-flow analysis. Smaller banks in particular rely excessively on collateral securities, often misjudging. Some of the larger banks use instead independent valuators.

⇒ Financial and technical innovation and the pace of growth of banks ought to be balanced against the need to radically increase efficiency. There is the need to reduce costs and, possibly, employment. Overstaffing could erode profit margins in view of the relatively fast wage growth of skilled labor and increased competition in the wake of EU accession. The fast expansion of Estonian banks, both domestically and in neighboring countries, provides an opportunity to exploit economies of scale and scope, and of technical efficiency in general.

B. Capital Markets and Insurance

46. While most of the efforts to bridge the regulatory gaps are correctly pointed at the banking system, Estonia also needs to develop a complete, consistent and effective regulatory framework for capital markets. For completeness, the Estonian capital markets regulatory framework needs to include segments which are currently unregulated such as pensions, corporate, mortgage and municipal bonds. For consistency it needs to apply a basic common set of principles. A guiding principle in the elaboration of such framework is that it should avoid creating incentives for market participants to engage in regulatory arbitrage by placing the securities activities under oversight of the regulator with the least burdensome requirements; for instance, banks and broker-dealers engaging in securities activities or pension funds and life insurance companies engaged in the administration of pension schemes. The key elements to achieve these two objective are the following:

- Avoid incentives for tax arbitrage that leads to the artificial creation of intermediaries to minimize the tax bill. For example, the income tax on insurance premiums is very low (1%), especially when compared to other forms of financial intermediation. This simply creates artificial (and socially costly) financial intermediaries. The Estonian authorities need to remedy this problem by setting the income tax on premiums at the same level as other sources of income (26%), and then make insurance policies tax deductible, like in most other countries, since it is a regular cost of business operation.

- Harmonize the EU Directive on capital adequacy needs that will be applied on a consolidated basis. At present banks are more heavily regulated and supervised than securities firms. The latter need also be subject to greater scrutiny, tightening rules and regulations on information disclosure and transparency, and insider trading. This will require strengthening the supervisory agencies, particularly the Insurance and the Securities Boards. This includes dealing with the staffing and training needs, upgrading reporting requirements, information systems, and application of licensing standards. This also includes granting greater autonomy to the Boards, reducing staff turnover through better pay and increasing the power to enforce regulations. Finally, other recommendation made above for banking supervision also applies to capital markets and insurance. For instance, training on the job by on-the-field consultants and twinning arrangements would greatly improve Estonia's regulatory capacity in these fields.

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